

**Institution:** University of Ghana Medical School  
Korle Bu Teaching Hospital (KBTH)  
Accra, Ghana

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## LAB RESOURCES

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**Please describe the laboratory facilities available in your research institute, including the items listed below (if applicable):**

*Lab space and equipment (general):*

There are two main laboratories:

- Central & Fevers Unit laboratory does haematology, microbiology, biochemistry, viral load and dry blood spot (DBS) – with CD4 measuring and DNA equipment.
- Clinical Virology laboratory does viral load and serological diagnosis.

*BSL-2 lab space and equipment:*

Becton Dickinson Facs Calibre and Facs count machines

*Flow cytometry equipment:*

Yes

*Other:*

Roche Ampichlor for Viral loads, Bactec for bacterial cultures as well as histopathology laboratories

**Please list the research groups in your institute, including the size and areas of expertise for each group:**

- There are numerous small research groups of 3-5 people working on all aspects of health, i.e., haematological disorders, Infectious Diseases, HIV and co-infections (TB, hepatitis), parasitology, reproductive health, CVD, GIT disorders, etc.

## BIOLOGICAL SPECIMEN REPOSITORY

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**Please describe the biological specimens stored at your institute:**

1. Sera
2. Bacterial Isolates
3. Stool samples
4. Nasopharyngeal aspirates



### **Does your institute have a database of stored samples?**

- There is no single database on all stored samples. Individual investigators have their databases.

### **Please provide details on methods for biological specimen storage at your institute (e.g., are Standardized Operating Procedures used?):**

- SOP's are not in use in all the laboratories. Samples are stored at -80 degrees Celcius, but are not properly catalogued.

### **Please describe the equipment/facilities available for sample storage at your institute, including items listed below (if applicable):**

<i>-80C freezers</i>	Available at the public health reference lab (not part of the institution). Also available at CVD research lab.
<i>Nitrogen storage tanks</i>	No
<i>Dry ice availability</i>	Available from outside the institution
<i>Use of a nitrogen generator</i>	No

## **TRAINING AND EDUCATION**

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### **Please describe the training initiatives your institution has in place for individuals prior to working in clinical studies:**

- Training workshops on human research and good clinical practice/ ethics. Also online training for investigators.

### **Please describe the training initiatives your institution has in place for individuals prior to working in the laboratory:**

- After receiving a degree in an aspect of laboratory science, they are exposed to an in-house orientation.

### **What assays/techniques do you excel in at your institute?**

- HIV Viral loads
- Molecular diagnosis - HIV drug resistance, RFLP
- Qualitative detection of viral nucleic acid
- Serological-Elisa and rapid tests

**What training could you provide to visiting scientists?**

- The unit can provide training on all of the above listed procedures.

**What rank are the majority of your trainees? (e.g., approximate numbers of undergraduate students, Masters, PhD, post-doc, MDs)**

- Masters students in microbiology (20), PhDs (11)

**Do you offer training classes/courses for any of the following?**

<i>Grant Writing</i>	Yes
<i>Manuscript/abstract writing</i>	Yes
<i>Computer skills, excel, prism, endnote, word, powerpoint</i>	
<i>Presentation skills</i>	Yes
<i>Epidemiology</i>	
<i>Biostatistics</i>	

**Does your institute receive funds to support training initiatives?** No

**Does your institution send trainees abroad for additional training?**

- Yes, as part of sandwich courses in Masters and PhD degrees. This is individualized, so composite information is not available.

**What Masters and/or Doctoral programs does your institution offer?**

- Physiology, Anatomy, Clinical Chemistry, Microbiology, Haematology, Pharmacology, Pathology, Biochemistry

## **COLLABORATIONS**

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**Please list and briefly describe your current collaboration with any African institutions for either research or training purposes:**

- MRC-Gambia for TB research, UI-Nigeria for Ethics training

**Please list and briefly describe your institution's collaborations and/or partnerships with entities outside of Africa (e.g., organizations and networks in the USA, Europe, etc. – including CFARS, NIH clinical trials networks, HPTN, HVTN, AMC, leDEA, USAID, PEPFAR, etc.):**

- Brown University-CFAR: Pharmacokinetics of Efavirenz in HIV/TB infected persons
- University of Washington School of Medicine: HIV variants

- Yale University: Paediatric HIV and HIV/Malaria in Pregnant Women
- University of Michigan
- leDEA: Paediatric HIV
- USAID/HED: Higher Education in HIV

## CLINICAL COHORTS

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**Do you have access to existing clinical cohorts in Africa or USA?** Yes

**Please describe each existing clinical cohort that you have access to, including specifics like “HIV-TB infected HAART naïve adults”, sample size, sample type, sex, age, and whether clinical samples are currently being collected and/or stored (specify which samples):**

- We have large numbers of patients at the clinics, but these have not been characterized as above, although some of the information is available.
- Cohort of 1,000 children with HIV and 8,000 adults with HIV. These include treatment naïve, those on treatment, coinfection with TB, hepatitis, etc. There is no active storage of biological samples from this group.

**Are you planning to establish any new clinical cohorts over the next 5 years?**  
Possibly

## DATA MANAGEMENT

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**Please describe the DATA MANAGEMENT FACILITIES available in research institute, including the items listed below (if applicable):**

*Data management expertise, including staff complement (general):*

- Highly inadequate (one statistician)

*On-site database design, implementation and trouble-shooting:*

N/A

*Details of off-site support (by whom):*

Brown University

*Other:*

Univ of Michigan

## BIostatistical Support

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**Please describe the BIOSTATISTICAL SUPPORT available in your research institute, including the items listed below (if applicable):**

*Biostatistical expertise, including staff complement/composition of PhD and Masters level biostatisticians:*

- One biostatistician with PhD in Statistics

*Specific areas of biostatistical expertise/excellence:*

- Population-based studies and longitudinal studies

*Details of off-site support (by whom):*

- Brown University faculty